

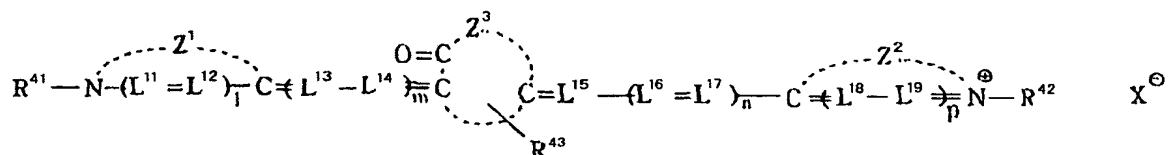
1. A silver halide photographic light-sensitive material comprising at least one silver halide emulsion layer and at least one hydrophilic colloid layer on a support, wherein the silver halide emulsion layer and/or the hydrophilic colloid layer contains at least one hydrazine derivative, a silver halide emulsion in the silver halide photographic light-sensitive material is spectrally sensitized with at least one dye selected from dyes represented by any one of the following formulas (I) to (IV), and further the silver halide photographic light-sensitive material contains a benzotriazol compound:

$$R^{31}-N-(CH=CH)_{n^1}-C=CH-\overset{\overset{R^{33}}{|}}{C}=CH-C\equiv(CH-CH)_{n^2}-N^{\oplus}-R^{32}$$

(X¹)_{m¹}

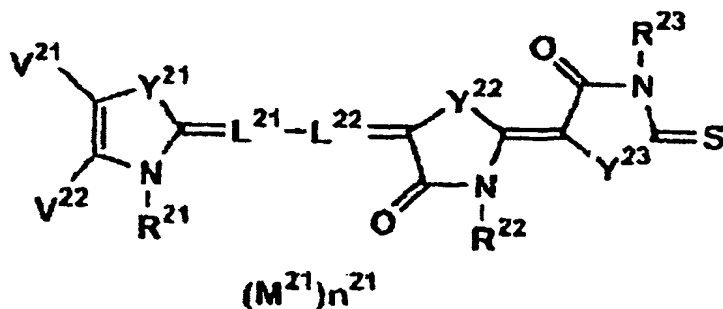
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Formula II



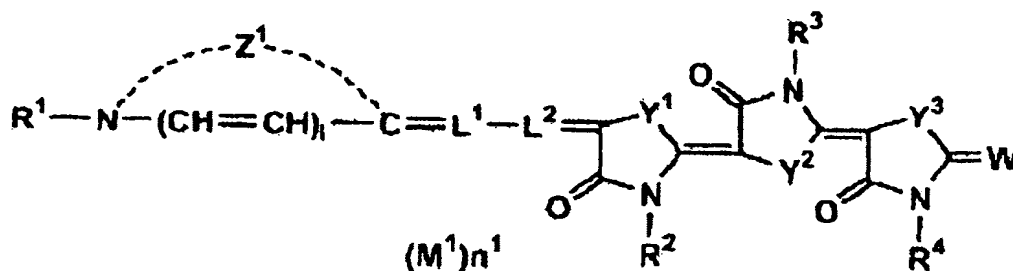
wherein, in the formula (II), Z^1 and Z^2 each independently
 5 represent an atomic group required to form a 5- or 6-membered
 heterocyclic ring, Z^3 represents an atomic group required to
 form a 5- or 6-membered nitrogen-containing heterocyclic ring,
 which has a substituent (R^{43}) on a nitrogen atom in Z^3 , R^{41} and
 R^{42} each independently represent an alkyl group, an alkenyl
 10 group, an aralkyl group or an aryl group, R^{43} represents a
 substituent having the same meaning as that of R^{41} or R^{42} , a
 substituted amino group, amido group, imino group, an alkoxyl
 group or a heterocyclic group, where at least one of R^{41} , R^{42}
 and R^{43} represents a water-soluble group, L^{11} to L^{19} each
 15 independently represent a methine group, m and n each
 independently represent 0, 1 or 2, p represents 0 or 1, and X
 represents a counter ion;

Formula III



atoms and a water-solubilizing group, R^{22} , R^{23} and R^{24} each independently represent an aliphatic group, an aryl group or a heterocyclic group, where at least two of R^{22} , R^{23} and R^{24} have a water-solubilizing group, V^{21} and V^{22} each independently
 5 represent hydrogen atom, an alkyl group, an alkoxyl group or an aryl group, or V^{21} and V^{22} bind together to represent a group forming a condensed ring with the azole ring, L^{21} and L^{22} each independently represent a substituted or unsubstituted methine group, M^{21} represents an ion required to offset the total
 10 intramolecular charge, and n^{21} represents the number of ions required to offset the total intramolecular charge;

Formula IV



wherein, in the formula (IV), Y^1 , Y^2 and Y^3 each independently represent $-N(R^5)-$, oxygen atom, sulfur atom, selenium atom or tellurium atom, Z^1 represents a nonmetallic atom group required to form a 5- or 6-membered nitrogen-containing heterocyclic
 20 group, which may form a condensed ring, R^1 represents an aliphatic group having 8 or less carbon atoms and a water-solubilizing group, R^2 , R^3 , R^4 and R^5 each independently represent an aliphatic group, an aryl group or a heterocyclic group, where at least two of R^2 , R^3 , R^4 and R^5 have a
 25 water-solubilizing group, W represents oxygen atom, sulfur atom or $=C(E^1)-(E^2)$ where E^1 and E^2 each independently represent an electron-withdrawing group, and E^1 and E^2 may bind together to

form a keto ring or an acidic heterocyclic ring, L^1 and L^2 each independently represent a substituted or unsubstituted methine group, l represents 0 or 1, M^1 represents an ion required to offset the total intramolecular charge, n^1 represents the number of ion required to offset the total intramolecular charge.

2. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (I).

10 3. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (II).

15 4. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (III).

20 5. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (IV).

25 6. The silver halide photographic light-sensitive material according to claim 1, wherein the dye for spectral sensitization can be dissolved in water at a concentration of 0.05 weight % or more.

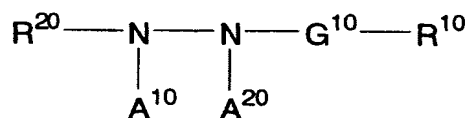
7. The silver halide photographic light-sensitive material according to claim 1, wherein the addition amount of the dye for spectral sensitization is 4×10^{-6} to 8×10^{-3} mol per mol of silver halide.

30 8. The silver halide photographic light-sensitive material according to claim 1, wherein the grain size of the silver halide is 0.2 to 1.3 μm and the addition amount of the dye for spectral sensitization is 2×10^{-7} to 3.5×10^{-6} per m^2

of the surface area of the silver halide grains.

9. The silver halide photographic light-sensitive material according to claim 1, wherein the hydrazine derivative is represented by the following formula (D):

Formula (D)



wherein R^{20} represents an aliphatic group, an aromatic group or a heterocyclic group, R^{10} represents hydrogen atom or a blocking group, and G^{10} represents $-\text{CO}-$, $-\text{COCO}-$, $-\text{C}(=\text{S})-$, $-\text{SO}_2-$, $-\text{SO}-$, $-\text{PO}(\text{R}^{30})-$ group or an iminomethylene group, R^{30} is selected from the same range of groups defined for R^{10} , R^{30} may be different from R^{10} , and A^{10} and A^{20} both represent a hydrogen atom, or one of them represents a hydrogen atom and the other represents a substituted or unsubstituted alkylsulfonyl group, a substituted or unsubstituted arylsulfonyl group or a substituted or unsubstituted acyl group.

10. The silver halide photographic light-sensitive material according to claim 9, wherein R^{20} in the formula (D) represents a substituted phenyl group.

11. The silver halide photographic light-sensitive material according to claim 9, wherein the hydrazine derivative represented by the formula (D) have at least one substituent, directly or indirectly on R^{20} or R^{10} , selected from the group consisting of a ballast group, a group that can be absorbed on silver halide, a group containing quaternary ammonio group, a nitrogen-containing heterocyclic group containing a quaternized nitrogen atom, a group containing repeating units of ethyleneoxy group, an (alkyl, aryl or heterocyclyl)thio group, a dissociating group capable of dissociating in an

alkaline developer, and a hydrazino group capable of forming a multimer.

12. The silver halide photographic light-sensitive material according to claim 9, wherein G^{10} in the formula (D) is -CO- group, and R^{10} in the formula (D) is hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, an aryl group or a heterocyclic group.

13. The silver halide photographic light-sensitive material according to claim 9, wherein G^{10} in the formula (D) is -COCO- group, and R^{10} in the formula (D) is an alkoxy group, an aryloxy group or an amino group.

14. The silver halide photographic light-sensitive material according to claim 1, wherein the hydrazine derivative is contained in an amount of 1.0×10^{-4} mol/mol Ag or more.

15. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in the silver halide emulsion layer.

16. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is benzotriazole or 5-methylbenzotriazole.

17. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in an amount of 1×10^{-4} to 1×10^{-1} mol/mol of silver halide.

18. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in an amount of 1×10^{-3} to 7×10^{-2} mol/mol of silver halide.

19. The silver halide photographic light-sensitive material according to claim 1, which has a gelatin layer between the silver halide emulsion layer and the support.

20. The silver halide photographic light-sensitive material according to claim 1, wherein coated silver amount in

the silver halide photographic light-sensitive material is 3.0 g/m² or less.